APPLIED MATHEMATICS AND COMPUTATION

VOLUME 29 1989

SIMONA MURATORI AND SERGIO RINALDI
A Dynamical System with Hopf Bifurcations and Catastrophes 1

ULDERICO BULGARELLI, MARIA MERCEDE CERIMELE, AND ANN ZARETTI
A Numerical Model Related to an Astrophysical Problem 17

S. UENO
Stochastic Approach to the Cauchy System for the Scattering Function with Hybrid Reflector 39

JOHN P. BOYD
The Asymptotic Chebyshev Coefficients for Functions with Logarithmic Endpoint Singularities: Mappings and Singular Basis Functions 49

C.-C. JAY KUO
Two-Color Fourier Analysis of the Multigrid Method with Red-Black Gauss-Seidel Smoothing 69

V. LAKSHMIKANTHAM AND XINZHI LIU
Stability for Impulsive Differential Systems in Terms of Two Measures 89

RATNASINGHAM SHIVAJI
Remark on a Sufficient Condition for Multiplicity in a Model in Chemical Reactor Theory 99

HAYM BENAROYA
Markov Chain Transition Probabilities and Experimental Data 107

ALEXANDER P. MORGAN AND ANDREW J. SOMMESE
Coefficient-Parameter Polynomial Continuation 123

Toshiaki Itoh and Kanji Abe
Discrete Lagrange's Equations and Canonical Equations Based on the Principle of Least Action 161

N. I. Iaokimidis and K. E. Papadakis
A New Class of Quite Elementary Closed-Form Integral Formulae for Roots of Nonlinear Equations 185

Mousa Mitwasi, Ann-Marie Connolly, and Lucien Duckstein
Applying Multicriteria Decision Making Techniques for Planning Machining Operations 197

P. M. Pardalos
Parallel Search Algorithms in Global Optimization 219

G. Behforooz
End Conditions for Cubic Spline Interpolation Derived from Integration 231

Richard L. Patterson
Regression Estimates of Stochastic Compartmental Parameters Using Net Balance and Cumulative Flow Data 245

G. K. Kulev and D. D. Bainov
Global Stability of Sets for Systems with Impulses 255

M. Muraskin
Use of Commutation Relations in No Integrability Aesthetic Field Theory 271

Volume Contents